



UNITED STATES PATENT AND TRADEMARK OFFICE

VS

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,450	02/12/2004	Apin Chang	624-040319	4777
28289	7590	01/23/2008		
THE WEBB LAW FIRM, P.C. 700 KOPPERS BUILDING 436 SEVENTH AVENUE PITTSBURGH, PA 15219			EXAMINER YUN, EUGENE	
			ART UNIT 2618	PAPER NUMBER
			MAIL DATE 01/23/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/777,450

Applicant(s)

CHANG, APIN

Examiner

Eugene Yun

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6 and 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art in view of Lee et al. (US 6,216,017).

Referring to Claim 1, the applicant's admitted prior art teaches a wireless intercommunicating apparatus comprising:

- a wireless intercommunicating device 1 (fig. 1) including
- a primary housing 10 (fig. 1),
- an antenna 11 (fig. 1) mounted on said primary housing,
- a first switch member 17 (fig. 1) mounted on said primary housing,
- a second switch member 15 (fig. 1) mounted on said primary housing,
- a receiver mounted in said primary housing and interconnecting electrically said antenna and said first switch member for receiving an incoming radio frequency signal via said antenna (see pg. 1, lines 17-20), said receiver generating an audio signal corresponding to the incoming radio frequency signal and outputting the audio signal via said first switch member (see pg. 1, line 26 to pg. 2, line 2),
- a transmitter mounted in said primary housing and interconnecting electrically said second switch member and said antenna (see pg. 1, lines 20-21),

an auxiliary device including an auxiliary housing 20 (fig. 1),
an earphone switch port 25 (fig. 1) mounted on said auxiliary housing and adapted to be connected to an earphone 26 (fig. 1),
a first coupling member wiredly connected to said earphone switch port and connected detachably and electrically to said first switch member of said wireless intercommunicating device (see pg. 2, lines 14-18),
an auxiliary speaker mounted in said auxiliary housing and coupled to said earphone switch port (see pg. 2, lines 18-19),
said earphone switch port switching operation from a first state, where said first coupling member is connected electrically to said auxiliary speaker such that said auxiliary speaker reproduces the audio signal from said receiver of said wireless intercommunicating device when said earphone switch port is disconnected from the earphone, to a second state, where said first coupling member is disconnected from said auxiliary speaker and enables the earphone to reproduce the audio signal from said receiver of said wireless intercommunicating device when said earphone switch port is connected to the earphone (see pg. 2, lines 3-13),
an auxiliary microphone mounted on said auxiliary housing for receiving an incoming audio signal (see pg. 2, lines 13-14),
a second coupling member wiredly connected to said auxiliary microphone and connected detachably and electrically to said second switch member of said wireless intercommunicating device such that the incoming audio signal received by said auxiliary microphone is transmitted to said transmitter of said wireless

intercommunicating device via said second coupling member and said second switch member (see pg. 2, lines 13-17).

The applicant's admitted prior art does not teach:

a processor mounted in said primary housing, connected electrically to said receiver and said second switch member, generating a driving signal upon detecting generation of the audio signal, and outputting the driving signal via said second switch member; and

a signal indicating unit connected electrically to said second coupling member and driven by the driving signal from said processor of said wireless intercommunicating device via said second switch member and said second coupling member so as to indicate receipt of the incoming radio frequency signal by said wireless intercommunicating device.

Lee teaches:

a processor 114 (fig. 3A) mounted in said primary housing, connected electrically to said receiver 115 (fig. 3A) and said second switch member 149 (fig. 3A noting that processor and switch are connected by way of controller 111), generating a driving signal upon detecting generation of the audio signal (see 141 of fig. 3A noting that the amplifier drives the signal), and outputting the driving signal via said second switch member (see passage from amplifier 141 to switch 149); and

a signal indicating unit 103 (fig. 3A where the buzzer is the signal indicating member) connected electrically to said second coupling member (see 104 of fig. 3A where the coupling member is what couples the earphone 105 to the device) and driven

by the driving signal from said processor of said wireless intercommunicating device via said second switch member (see passage from amplifier 141 to switch 149) and said second coupling member (see 104 stating where it receives from RX processor) so as to indicate receipt of the incoming radio frequency signal by said wireless intercommunicating device (see col. 3, lines 37-38).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Lee to the applicant's admitted prior art in order to more effectively increase audio signal strength to where it is sufficient for the user.

Referring to Claim 10, the applicant's admitted prior art teaches a wireless intercommunicating device 1 (fig. 1) comprising:

- a housing 10 (fig. 1),

- an antenna 11 (fig. 1) mounted on said housing,

- a first switch member 17 (fig. 1) mounted on said housing,

- a second switch member 15 (fig. 1) mounted on said housing,

- a receiver mounted in said housing and interconnecting electrically said antenna and said first switch member for receiving an incoming radio frequency signal via said antenna (see pg. 1, lines 17-20), said receiver generating an audio signal corresponding to the incoming radio frequency signal and outputting the audio signal via said first switch member (see pg. 1, line 26 to pg. 2, line 2),

- a transmitter mounted in said housing and interconnecting electrically said second switch member and said antenna (see pg. 1, lines 20-21).

The applicant's admitted prior art does not teach:

a processor mounted in said housing, connected electrically to said receiver and said second switch member, generating a driving signal upon detecting generation of the audio signal, and outputting the driving signal via said second switch member.

Lee teaches:

a processor 114 (fig. 3A) mounted in said housing, connected electrically to said receiver 115 (fig. 3A) and said second switch member 149 (fig. 3A noting that processor and switch are connected by way of controller 111), generating a driving signal upon detecting generation of the audio signal (see 141 of fig. 3A noting that the amplifier drives the signal), and outputting the driving signal via said second switch member (see passage from amplifier 141 to switch 149).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Lee to the applicant's admitted prior art in order to more effectively increase audio signal strength to where it is sufficient for the user.

Referring to Claim 13, the applicant's admitted prior art teaches an auxiliary device 20 (fig. 1) for use with a wireless intercommunicating device, the wireless intercommunicating device 1 (fig. 1) including

- a primary housing 10 (fig. 1),
- an antenna 11 (fig. 1) mounted on said primary housing,
- a first switch member 17 (fig. 1) mounted on said primary housing,
- a second switch member 15 (fig. 1) mounted on said primary housing,

a receiver mounted in said primary housing and interconnecting electrically said antenna and said first switch member for receiving an incoming radio frequency signal via said antenna (see pg. 1, lines 17-20), said receiver generating an audio signal corresponding to the incoming radio frequency signal and outputting the audio signal via said first switch member (see pg. 1, line 26 to pg. 2, line 2),

a transmitter mounted in said primary housing and interconnecting electrically said second switch member and said antenna (see pg. 1, lines 20-21),

said auxiliary device comprising an auxiliary housing 20 (fig. 1),

an earphone switch port 25 (fig. 1) mounted on said auxiliary housing and adapted to be connected to an earphone 26 (fig. 1),

a first coupling member wiredly connected to said earphone switch port and connected detachably and electrically to said first switch member of said wireless intercommunicating device (see pg. 2, lines 14-18),

an auxiliary speaker mounted in said auxiliary housing and coupled to said earphone switch port (see pg. 2, lines 18-19),

said earphone switch port switching operation from a first state, where said first coupling member is connected electrically to said auxiliary speaker such that said auxiliary speaker reproduces the audio signal from said receiver of said wireless intercommunicating device when said earphone switch port is disconnected from the earphone, to a second state, where said first coupling member is disconnected from said auxiliary speaker and enables the earphone to reproduce the audio signal from

said receiver of said wireless intercommunicating device when said earphone switch port is connected to the earphone (see pg. 2, lines 3-13),

an auxiliary microphone mounted on said auxiliary housing for receiving an incoming audio signal (see pg. 2, lines 13-14),

a second coupling member wiredly connected to said auxiliary microphone and connected detachably and electrically to said second switch member of said wireless intercommunicating device such that the incoming audio signal received by said auxiliary microphone is transmitted to said transmitter of said wireless intercommunicating device via said second coupling member and said second switch member (see pg. 2, lines 13-17).

The applicant's admitted prior art does not teach:

a processor mounted in said primary housing, connected electrically to said receiver and said second switch member, generating a driving signal upon detecting generation of the audio signal, and outputting the driving signal via said second switch member; and

a signal indicating unit connected electrically to said second coupling member and driven by the driving signal from said processor of said wireless intercommunicating device via said second switch member and said second coupling member so as to indicate receipt of the incoming radio frequency signal by said wireless intercommunicating device.

Lee teaches:

a processor 114 (fig. 3A) mounted in said primary housing, connected electrically to said receiver 115 (fig. 3A) and said second switch member 149 (fig. 3A noting that processor and switch are connected by way of controller 111), generating a driving signal upon detecting generation of the audio signal (see 141 of fig. 3A noting that the amplifier drives the signal), and outputting the driving signal via said second switch member (see passage from amplifier 141 to switch 149); and

a signal indicating unit 103 (fig. 3A where the buzzer is the signal indicating member) connected electrically to said second coupling member (see 104 of fig. 3A where the coupling member is what couples the earphone 105 to the device) and driven by the driving signal from said processor of said wireless intercommunicating device via said second switch member (see passage from amplifier 141 to switch 149) and said second coupling member (see 104 stating where it receives from RX processor) so as to indicate receipt of the incoming radio frequency signal by said wireless intercommunicating device (see col. 3, lines 37-38).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Lee to the applicant's admitted prior art in order to more effectively increase audio signal strength to where it is sufficient for the user.

Referring to Claims 2 and 14, the applicant's admitted prior art also teaches said auxiliary housing having a size smaller than that of said primary housing of said wireless intercommunicating device (see fig. 1 where the auxiliary housing 20 is smaller than the primary housing 10).

Referring to Claims 3 and 11, Lee also teaches a current amplifying unit interconnecting electrically said processor and said second switch member for amplifying the driving signal from said processor (see 141 of fig. 3A where the amplifier is interconnected with the processor 114 and the switch 149).

Referring to Claims 4 and 15, Lee also teaches the signal indicating unit including a light emitting diode (see col. 5, lines 36-40).

Referring to Claims 5 and 16, Lee also teaches the signal indicating unit including a vibration motor (see col. 5, lines 36-40).

Referring to Claim 6, the applicant's admitted prior art also teaches:

a primary speaker 18 (fig. 1) mounted in said primary housing 10 (fig. 1) and coupled to said first switch member 17 (fig. 1), said primary speaker being connected electrically to said receiver 12 (fig. 1) via said first switch member such that said primary speaker reproduces the audio signal therefrom when said first coupling member of said auxiliary device is disconnected from said first switch member (see pg. 2, lines 3-7), said primary speaker being disconnected from said receiver when said first coupling member of said auxiliary device is connected electrically to said first switch member (see pg. 2, line 25 to pg. 3, line 1), and

a primary microphone 19 (fig. 1) mounted on said primary housing 10 (fig. 1) and coupled to said second switch member 15 (fig. 1) for receiving an incoming audio signal, said primary microphone being connected electrically to said transmitter 16 (fig. 1) via said second switch member such that the incoming audio signal received by said primary microphone is transmitted to said transmitter when said second coupling

member of said auxiliary device is disconnected from said second switch member (see pg. 2, lines 8-11), said primary microphone being disconnected from said transmitter when said second coupling member of said auxiliary device is connected electrically to said second switch member (see pg. 2, line 25 to pg. 3, line 2).

Referring to Claim 12, the applicant's admitted prior art also teaches:

a speaker 18 (fig. 1) mounted in said housing 10 (fig. 1) and coupled to said first switch member 17 (fig. 1), said speaker being connected electrically to said receiver 12 (fig. 1) via said first switch member such that said speaker reproduces the audio signal from said receiver (see pg. 2, lines 3-7); and

a microphone 19 (fig. 1) mounted on said housing 10 (fig. 1) and coupled to said second switch member 15 (fig. 1) for receiving an incoming audio signal, said microphone being connected electrically to said transmitter 16 (fig. 1) via said second switch member such that the incoming audio signal received by said microphone is transmitted to said transmitter (see pg. 2, lines 8-11).

3. Claims 7, 8, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art and Lee and further in view of Stafford (US 4,754,486).

Referring to Claims 7 and 17, the combination of the applicant's admitted prior art and Lee does not teach a signal attenuating member coupled to said earphone switch port for attenuating the audio signal transmitted from the receiver of the wireless intercommunicating device to the earphone when said earphone switch port is in the

second state.. Stafford teaches a signal attenuating member 8, 10, and 11 (fig. 1) coupled to said earphone switch port for attenuating the audio signal transmitted from the receiver of the wireless intercommunicating device to the earphone when said earphone switch port is in the second state (see col. 6, lines 10-22). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Stafford to the modified device of applicant's admitted prior art and Lee in order to more effectively eliminate outside noise in a wireless earphone set.

Referring to Claims 8 and 18, Stafford also teaches said signal attenuating member as a resistor (see col. 10, lines 38-43).

4. Claims 9 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art and Lee and further in view of Suzuki et al. (US 6,430,217).


Referring to Claims 9 and 19, the combination of the applicant's admitted prior art and Lee does not teach each of the first and second coupling members as a plug. Suzuki teaches each of the first and second coupling members as a plug (see plugs 65 and 67 and coupling members 32 and 47 of fig. 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Suzuki to the modified device of applicant's admitted prior art and Lee in order to increase clarity while using an external earphone and microphone.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eugene Yun whose telephone number is (571) 272-7860. The examiner can normally be reached on 9:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on (571)272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Eugene Yun
Examiner
Art Unit 2618

EY